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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/421,846	10/20/1999	JEAN-MARC ANDREOLI	R/97005Q	4669

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EXAMINER

BASHORE, WILLIAM L

ART UNIT

PAPER NUMBER

2176

DATE MAILED: 05/09/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

WAA

# Office Action Summary

Application No.

09/421,846

Applicant(s)

ANDREOLI ET AL.

Examiner

William L. Bashore

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 07 August 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 October 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6. 6) ☐ Other: \_\_\_\_\_

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### DETAILED ACTION

1. This action is responsive to communications: original application filed 10/20/1999, with a foreign priority filing date of 4/23/1997. IDS filed 10/19/2000 (paper 6).
2. The Constraint Agent reference cannot be presently considered because a published date cannot be found on said reference. The PCT search report cannot be considered because an International PCT Search Report by itself is not a valid IDS.
3. Claims 1-16 are pending. Claims 1, 13 are independent claims.

### *Specification*

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

Applicant appears to be disclosing a method of obtaining document constraint descriptors from analysis of logical relations equivalent to received attribute-value relations. However, Applicant's disclosure is insufficient to teach one skilled in the pertinent art a method of making and using Applicant's invention without undo experimentation. In addition, the Examiner cannot find any disclosure regarding a specific example (from start to finish) of Applicant's invention within said disclosure. It is noted that a substantial portion of said disclosure describes known processes (i.e. "Knowledge Brokers, and Feature Constraints"). Although informative, the distinction between said descriptions and what Applicant specifically describes as his/her invention is unclear.

Applicant is advised against the addition of new matter.

5. The disclosure is objected to because of the following informalities: the Specification should be amended to show that copending application is U.S. Patent Application Serial No. 09/421,752. This

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objection applies to (but is not necessarily limited to) the following: Applicant's Specification page 15 line 9, and page 33 line 20. Appropriate correction is required.

6. The disclosure is objected to because it contains an embedded hyperlink(s) and/or other form(s) of browser-executable code. Applicant is required to delete the embedded hyperlink(s) and/or other form(s) of browser-executable code. See MPEP § 608.01. This objection applies to (but is not necessarily limited to) the following: Applicant's Specification page 17 line 12.

7. The disclosure is objected to under 37 CFR 1.96, because impermissible information is present in Applicant's Specification page 42-43. Applicant is respectfully reminded that only computer program listings and embedded textual annotations are permitted in specification appendices. All other narrative material must be included in the specification pursuant to 37 CFR 1.52. Correction is required.

***Claim Rejections - 35 USC § 112***

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. Claims 1-16 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

10. In regard to independent claims 1, 13, the limitations of obtaining document constraint descriptors from analysis of logical relations equivalent to received attribute-value relations, are not

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enabled in the specification. Applicant is advised against the addition of new matter.

11. In regard to dependent claims 2-12, 14-16, claims 2-12, 14-16 are rejected for fully incorporating the deficiencies of their respective base claims.

*Examiner's Note*

12. The following rejections are based upon the Examiner's interpretation of obtaining document constraint descriptors from analysis of logical relations equivalent to received attribute-value relations, as constraints drawn from user combinations of searchable keywords forming logical relations.

*Claim Rejections - 35 USC § 103*

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 1-5, 8, 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rubinstein (hereinafter Rubinstein '233), U.S. Patent No. 5,794, 233 issued August 1998.

In regard to independent claim 1, Rubinstein '233 teaches:

Obtaining document constraint descriptors via logical combinations of keywords searchable in documents (Rubinstein '233 Abstract, Figure 2 item 250; compare with claim 1 "*A method for obtaining document constraint descriptors....the method comprising*").

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Attribute values as disclosed by relevance codes associated with keywords, said codes ranking the importance of each keyword, with said keywords used in forming logical relation queries for searching documents (Rubinstein '233 Figure 2 item 206, 208, 250, column 3 lines 34-44, column 4 lines 4-10; compare with claim 1 *"receiving ... attribute -value relations that can apply to documents"*).

Obtaining logical relations via inclusion of keywords into logic panes to produce logically joined expressions (Rubinstein '233 Figure 2 item 242, 246, column 4 lines 17-30; compare with claim 1 *"using... to obtain logical relations equivalent to the attribute-value relations"*).

Using said logically joined expressions to obtain a displayed constraint descriptor set as applied for document searching (Rubinstein '233 Figure 2 item 250, column 4 lines 49-56; compare with claim 1 *"using the logical relations to obtain a document constraint descriptor defining a set of one or more constraints equivalent to the logical relations."*).

The limitation of user signals would have been obvious to one of ordinary skill in the art at the time of the invention, in view of Rubinstein '233, because Rubinstein '233 teaches keyword selection using "drag and drop" (Rubinstein '233 column 4 lines 10-16), as well as input fields for entering data (Rubinstein '233 Figure 2 items 215, 250), clearly suggest user signals, providing Rubinstein '233 the capability and advantage of user interactivity (compare with claim 1 *"user signals"*).

**In regard to dependent claim 2**, Rubinstein '233 teaches a cursor control device, as well as a mouse and keyboard for a user to use in order to create logical relations (Rubinstein '233 Figure 4 item 406, column 7 lines 55-60; compare with claim 2).

**In regard to dependent claims 3, 4, 5**, Rubinstein '233 teaches a computer with a cursor control device, as well as a mouse and keyboard for a user to use in order to create logical relations (Rubinstein '233 Figure Figure 4 item 406, column 7 lines 55-60; compare with claims 3, 4, 5).

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In regard to dependent claim 8, Rubinstein '233 teaches presenting a graphical user interface image allowing a user to create a logical query, said image including presentation of a document constraint descriptor (Rubinstein '233 Figure 2 item 200, 250; compare with claim 8). In addition, Rubinstein '233 teaches a computer with RAM memory for storing data (Rubinstein '233 column 7 lines 49-53).

In regard to independent claim 13, Rubinstein '233 teaches:

Obtaining document constraint descriptors via logical combinations of keywords searchable in documents (Rubinstein '233 Abstract, Figure 2 item 250; compare with claim 13 "*A machine for obtaining document constraint descriptors....the machine comprising*").

A processor, and a graphical user interface (Rubinstein '233 column 7 lines 41-48, Figure 2,3; compare with claim 13 "*a processor; and user interface circuitry for providing user signals to the processor*").

Attribute values as disclosed by relevance codes associated with keywords, said codes ranking the importance of each keyword, with said keywords used in forming logical relation queries for searching documents (Rubinstein '233 Figure 2 item 206, 208, 250, column 3 lines 34-44, column 4 lines 4-10; compare with claim 13 "*receiving ....attribute -value relations that can apply to documents*").

Obtaining logical relations via inclusion of keywords into logic panes to produce logically joined expressions (Rubinstein '233 Figure 2 item 242, 246, column 4 lines 17-30; compare with claim 13 "*using....to obtain logical relations equivalent to the attribute-value relations*").

Using said logically joined expressions to obtain a displayed constraint descriptor set as applied for document searching (Rubinstein '233 Figure 2 item 250, column 4 lines 49-56; compare with claim 13

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*“using the logical relations to obtain a document constraint descriptor defining a set of one or more constraints equivalent to the logical relations.”).*

The limitation of user signals would have been obvious to one of ordinary skill in the art at the time of the invention, in view of Rubinstein ‘233, because Rubinstein ‘233 teaches keyword selection using “drag and drop” (Rubinstein ‘233 column 4 lines 10-16), as well as input fields for entering data (Rubinstein ‘233 Figure 2 items 215, 250), clearly suggest user signals, providing Rubinstein ‘233 the capability and advantage of user interactivity (compare with claim 13 “*user signals*”).

In regard to dependent claim 14, Rubinstein ‘233 teaches a general purpose microcomputer (Rubinstein ‘233 column 7 lines 41-43; compare with claim 14).

In regard to dependent claims 15, 16, Rubinstein ‘233 teaches creation of a logical relation query, resulting in a subset of returned documents (Rubinstein Abstract, column 5 lines 54-61; compare with claim 15

Rubinstein ‘233 teaches presenting a graphical user interface image allowing a user to create a logical query, said image including presentation of a document constraint descriptor, said image also including a document file with a displayed portion (Rubinstein ‘233 Figure 2 item 200, 221, 250, 270; compare with claim 16).

15. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rubinstein ‘233 as applied to claim 1 above, and further in view of Karnik, U.S. Patent No. 5,404,294 issued April 1995.



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In regard to dependent claims 6-7, Rubinstein '233 does not specifically teach input of a medium (i.e. paper form) via scanner, said medium containing printed values filled in by a user, wherein said values are subsequently read and analyzed. However, Karnik teaches a human readable pre-printed IRS form with values filled in by a user. The form is scanned, the values are read, and a mathematical formula is applied to certain inputted values (Karnik Figure 5, column 1 lines 53-57, 64-67, column 3 lines 60-64, column 6 lines 8-17; compare with claims 6-7). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Karnik to Rubinstein '233, providing Rubinstein '233 the capability of querying data from inputted IRS forms for statistical purposes.

16. Claims 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rubinstein '233 as applied to claim 1 above, and further in view of Rubinstein (hereinafter Rubinstein '897), U.S. Patent No. 5,721,897 issued February 1998.

In regard to dependent claim 9, Rubinstein '233 does not specifically teach a network. However, Rubinstein '897 teaches creating logical relations utilizing the Internet, which is indicative of a network (Rubinstein '897 column 12 lines 40-47; compare with claim 9). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Rubinstein '897 to Rubinstein '233, providing Rubinstein '233 the capability of gathering data and communication with a plurality of users during a session.

In regard to dependent claims 10-12, Rubinstein '233 teaches presenting a graphical user interface image allowing a user to create a logical query, said image including presentation of a document constraint descriptor, said image including document references, portions of are displayed.

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Rubinstein '233 also teaches a printer (Rubinstein '233 Figure 2 item 200, 221,250, 270, column 8 lines 1-3; compare with claims 10-12).

*Conclusion*

**17. Prior art made of record and not relied upon is considered pertinent to disclosure.**

Rubinstein	U.S. Patent No. 5,913,215	issued	06/1999
Gupta et al.	U.S. Patent No. 5,826,258	issued	10/1998
Madnick et al.	U.S. Patent No. 5,913,214	issued	06/1999
Celis et al.	U.S. Patent No. 6,021,405	issued	02/2000
Smith et al.	U.S. Patent No. 6,052,693	issued	04/2000
Althoff et al.	U.S. Patent No. 6,374,252	issued	04/2002
Christianson et al.	U.S. Patent No. 6,102,969	issued	08/2000
Senn et al.	U.S. Patent No. 6,151,610	issued	11/2000

Chakravarthy et al., Logic-Based Approach to Semantic Query Optimization, ACM Transactions on Database Systems, Vol. 15, No. 2, June 1990, pp. 162-207.

**18.** Any inquiry concerning this communication or earlier communications from the examiner should be directed to William Bashore whose telephone number is (703) 308-5807. The examiner can normally be reached on Monday through Friday from 11:30 AM to 8:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon, can be reached on (703) 308-5186.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

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19. Any response to this action should be mailed to:  
Commissioner of Patents and Trademarks  
Washington, D.C. 20231

or faxed to:

(703) 746-7239 (for formal communications intended for entry)

or:

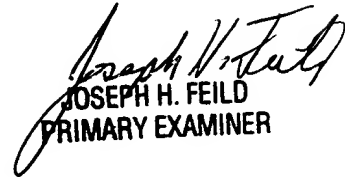
(703) 746-7240 (for informal or draft communications, please label  
"PROPOSED" or "DRAFT")

or:

(703) 746-7238 (for after-final communications)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,  
Arlington, VA, Fourth Floor (Receptionist).

William L. Bashore  
05/02/2002

  
JOSEPH H. FEILD  
PRIMARY EXAMINER